

**ABSTRACT****A SYSTEM FOR RECOGNIZING WHEELS BY ARTIFICIAL VISION**

The system includes wheel locating equipment, image capturing equipment, lighting equipment, a first control device, first communicating installations for communications between the first control device and the image capturing equipment, and second communicating installations for communications between the first control device and the lighting equipment. The image capturing equipment and the lighting equipment are arranged above the wheel locating equipment so as to enable the image capturing equipment to capture an image of a wheel. The first communicating installations sends the image to the first control device and the first control device processes the image to obtain data for identifying a wheel model. The invention also includes the process using the described system. The main step of the process is converting a circular portion of an image into a rectangular image by a polar transformation.